

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please AMEND claims 1 and 4 and ADD new claims 6 and 7 in accordance with the following:

1. (CURRENTLY AMENDED) Transmission equipment transmitting traffic signals input from a plurality of ports on the Synchronous Optical Network/Synchronous Digital Hierarchy network paths of which bandwidths are arbitrarily set by a Virtual Concatenation and Link Capacity Adjustment Scheme, said transmission equipment comprising:

an input traffic collector which collects and retains ~~an input~~ a traffic amount of traffic signals input in each input port for one period at preset periods;

a bandwidth set processor which
calculates a bandwidth for use in each input port from the ~~input~~ traffic amount of traffic signals, retained in the input traffic collector,

calculates ~~the~~ a corresponding number of virtual concatenation member paths from ~~the~~ a difference of between the calculated bandwidth in use and a virtual concatenation path bandwidth having been allocated to the input port, and

issues an addition command for adding or a deletion command for ~~adding or deleting~~ the virtual concatenation member paths for the calculated number;

a virtual concatenation controller which sets a virtual concatenation path bandwidth ~~against~~ on the traffic input from the plurality of ports; and

a link capacity adjustment scheme controller which ~~sets and changes~~ controls the virtual concatenation to ~~the virtual concatenation controller~~ set and change the virtual concatenation path bandwidth, based on the addition command or the deletion command of the virtual concatenation member paths issued by the bandwidth set processor.

2. (ORIGINAL) The transmission equipment according to claim 1 further comprising:
a virtual concatenation information storage which retains correspondence between each destination node of the virtual concatenation member paths and each input port,
wherein the bandwidth set processor allocates an idle virtual concatenation member path having not been allocated to any virtual concatenation paths to an input port which has the

same destination node and requires increasing the virtual concatenation path bandwidth.

3. (ORIGINAL) The transmission equipment according to claim 1 further comprising:
an input port set information storage which retains a bandwidth allocation priority and
a minimum guarantee bandwidth,

wherein, in the bandwidth set processor, when the addition command of a virtual concatenation member path is issued to the link capacity adjustment scheme controller, an input port having a higher priority is processed preferentially, and when the deletion command of a virtual concatenation member path is issued to the link capacity adjustment scheme controller, the issue of the deletion command is restrained so that the virtual concatenation path bandwidth may not fall below the minimum guarantee bandwidth.

4. (CURRENTLY AMENDED) The transmission equipment according to claim 1,
further comprising:

buffers each of which retains the input traffic correspondingly to each of the plurality of
input ports,

wherein, the preset period for collecting the input traffic amount in the input traffic
amount collector is determined by calculating ratios of each buffer size to each maximum
bandwidth for the entire plurality of input ports, and using the shortest value as the preset period.

5. (ORIGINAL) The transmission equipment according to claim 1,
wherein, when the input port bandwidth in use falls below the virtual concatenation path
bandwidth, the bandwidth set processor suspends issue of the deletion command of a virtual
concatenation member path to the link capacity adjustment scheme controller for a certain time,
thereby avoiding a state of failure to establish the virtual concatenation required for transmission,
caused by excessive addition or deletion of the virtual concatenation member paths in the link
capacity adjustment scheme in case of unstable input traffic amount.

6. (NEW) An input traffic collector for transmission equipment transmitting traffic
signals input from a plurality of ports on the Synchronous Optical Network/Synchronous Digital
Hierarchy network paths of which bandwidths are arbitrarily set by a Virtual Concatenation and
Link Capacity Adjustment Scheme, said input traffic collector comprising:

a collector which collects and retains a traffic amount of traffic signals input in each input
port for one period at preset periods; and

buffers each of which retains the input traffic correspondingly to each of the plurality of input ports,

wherein, the preset period for collecting the input traffic amount in the collector is determined by calculating ratios of each buffer size to each maximum bandwidth for the entire plurality of input ports, and using the shortest value as the preset period.

7. (NEW) A bandwidth set processor for transmission equipment transmitting traffic signals input from a plurality of ports on the Synchronous Optical Network/Synchronous Digital Hierarchy network paths of which bandwidths are arbitrarily set by a Virtual Concatenation and Link Capacity Adjustment Scheme, said bandwidth set processor transmission equipment comprising:

a processor that calculates a bandwidth for use in each input port from traffic amount of traffic signals, calculates a corresponding number of virtual concatenation member paths from a difference between the calculated bandwidth in use and a virtual concatenation path bandwidth having been allocated to the input port, and issues an addition command for adding or a deletion command for deleting the virtual concatenation member paths for the calculated number; and

a link capacity adjustment scheme controller which controls a virtual concatenation to set and change the virtual concatenation path bandwidth, based on the addition command or the deletion command of the virtual concatenation member paths issued by the bandwidth set processor,

wherein, when the input port bandwidth in use falls below the virtual concatenation path bandwidth, the bandwidth set processor suspends issue of the deletion command of a virtual concatenation member path to the link capacity adjustment scheme controller for a certain time.